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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/524,259	02/11/2005	Mihoko Ohashi	Q86191	9908

23373 7590 10/14/2008

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EXAMINER	
BERMAN, SUSAN W	

ART UNIT	PAPER NUMBER
1796	

MAIL DATE	DELIVERY MODE
10/14/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/524,259	OHASHI ET AL.	
	Examiner	Art Unit	
	/Susan W. Berman/	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 April 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-39* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-39* is/are rejected.

7)☐ Claim(s) _ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 February 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Arguments

Applicant's arguments for reconsideration filed 08-05-2008 have been found unpersuasive for the following reasons.

With respect to product claims 14-27 and 32-39, Applicant's arguments do not address the issue of whether the products disclosed by Araki et al anticipate the products instantly claimed. Applicant merely discusses the products of Fiering '587. With respect to the product claims, there is no evidence of record that the kind of initiator or the kind of energy, i.e. thermal or radiation, employed results in different products having significantly different properties. The reason the products are considered to be anticipated by the disclosure of Araki et al is that the polymers to be cured as disclosed by Araki et al contain fluorinated alkyl groups and epoxy groups, as set forth in the instant claims. Araki teaches applying the functional group-containing fluorine polymer as a primer and curing by heat. The cured fluorine-containing and epoxy group-containing polymers would be expected to have the same structure and properties since the photoacid generator is an initiator and not a curable component of the composition.

With respect to claims 1-8 and 10-13, Applicant argues that the Declaration under 37 CFR 1.132 filed 04-04-2008 and discussed in the rejection mailed 05-06-2008 shows that the photoacid generator taught by Fiering et al cannot act as a curing agent and that the resulting product was not cured. The data presented is not persuasive because the polymer tested did not contain any epoxy or oxetane groups that would have cured in the presence of acid generated by the photoacid generator. The polymer tested was not representative of the teaching within Fiering et al that epoxy groups may be present on the polymer, as set forth in the instant claims. For this

reason the data in the Declaration does not show that the photoacid generator taught by Fiering et al would cure the polymer containing epoxy groups disclosed by Araki.

New grounds of rejection of claims 1-39 under 35 U.S.C. 102(b) as being anticipated by Araki et al (6,069,215) are set forth herein below.

New grounds of rejection of claims 1-39 under 35 U.S.C. 103(a) as being unpatentable over Araki et al (6,069,215) in view of Obayashi et al (US 2003/0120008) are set forth herein below.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 14-27 and 32-39 are rejected under 35 U.S.C. 102(b) as being anticipated by Araki et al (6,069,215). Araki et al '215 disclose materials for coating compositions comprising a fluorine-containing polymer derived from fluorine-containing monomers having functional groups, such as epoxy groups. See column 3, line 43, to column 4, line 8, column 6, lines 18-64, column 8, lines 8-10 and 25-36. Monomer (M2) in instant claim 3 is taught in column 7, formula (2). Monomer (M3) in instant claim 4 is taught in column 7, formula (5). Use for optical parts is taught in column 24, lines 59-67. The instantly claimed cured article or optical materials are considered to be anticipated by the cured polymers taught by Araki et al because the components

of the polymers disclosed by Araki et al correspond to components of the polymers set forth in the instant claims. With respect to claim 15, there is no evidence of record to show that a significantly different product is obtained by photocuring.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Araki et al (6,069,215) in view of Obayashi et al (US 2003/0120008, filed 04-12-2002). The disclosure of Araki et al is discussed herein above.

Obayashi et al disclose an anti-reflection film obtained from a fluorine containing copolymer in composition with a photoacid generator and having excellent adhesion to a substrate [0062], [0123] to [0126] [0139], [0161. The fluorinated copolymers contain a reactive group "A", such as epoxy group or oxetanyl group, however, the copolymers differ from those instantly claimed because the reactive group is not a substitutent on the fluoralkyl group. See [0036] to [0039], formula 7 and formula 8 monomer components, [0048], [0083], A-37, A-38, A-40, A-51 to A-55 on pages 9-10, specific fluorine-containing polymers having epoxy groups on pages 16-17.

It would have been obvious to one skilled in the art at the time of the invention to add a photoacid generator, as taught by Obayashi et al in an analogous composition, to the

compositions comprising a fluorine-containing polymer having epoxy groups disclosed by Araki et al.

Claims 1-8, 10-27 and 32-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Araki et al (6,069,215) in view of Feiring et al (6,790,587). Araki et al '215 disclose materials for coating compositions comprising a fluorine-containing polymer derived from fluorine-containing monomers having functional groups, such as epoxy groups (column 3, line 43, to column 4, line 8, column 6, lines 18-64, column 8, lines 8-10 and 25-36). Monomer (M2) in instant claim 3 is taught in column 7, formula (2). Monomer (M3) in instant claim 4 is taught in column 7, formula (5). Use for optical parts is taught in column 24, lines 59-67. Araki et al '215 does not mention adding a photoacid generator.

Feiring et al teach adding a photoacid generator to an analogous fluorinated polymer to provide acid upon exposure to radiation that causes deprotection and production of hydrophilic acid groups in the fluorinated polymer to facilitate development under aqueous conditions. It would have been obvious to one skilled in the art at the time of the invention to add a photoacid generator to the fluorinated polymer compositions disclosed by Araki et al, as taught by Feiring et al in analogous art. One skilled in the art at the time of the invention would have been motivated by a reasonable expectation of providing acid upon exposure to radiation that causes deprotection and production of hydrophilic acid groups in the fluorinated polymer to facilitate development under aqueous conditions, as taught by Feiring et al. One skilled in the art at the time of the invention would have been motivated by a reasonable expectation of photogenerating acid from the photoacid generator taught by Fiering et al and photocuring the fluorine-containing

polymer having epoxy groups disclosed by Araki et al because epoxy groups are well known to be curable in the presence of acid initiator.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to /Susan W. Berman/ whose telephone number is 571 272 1067. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571 272 1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SB
10/9/2008

/Susan W Berman/
Primary Examiner
Art Unit 1796